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LA TIMES

An EPA staff report suggests methane from hydraulic fracturing, or fracking, contaminated wells near Dimock, Pa., but the agency says the water's safe to drink. One year ago, the Environmental Protection Agency finished testing drinking water in Dimock, Pa., after years of complaints by residents who suspected that nearby natural gas production had fouled their wells. The EPA said that for nearly all the 64 homes whose wells it sampled, the water was safe to drink. Yet as the regulator moved to close its investigation, the staff at the mid-Atlantic EPA office in Philadelphia, which had been sampling the Dimock water, argued for continuing the assessment. In an internal EPA PowerPoint presentation obtained by the Tribune/Los Angeles Times Washington Bureau, staff members warned their superiors that several wells had been contaminated with methane and substances such as manganese and arsenic, most likely because of local natural gas production. The presentation, based on data collected over 4 1/2 years at 11 wells around Dimock, concluded that "methane and other gases released during drilling (including air from the drilling) apparently cause significant damage to the water quality." The presentation also concluded that "methane is at significantly higher concentrations in the aquifers after gas drilling and perhaps as a result of fracking [hydraulic fracturing] and other gas well work." Critics say the decision in July 2012 by EPA headquarters in Washington to curtail its investigation at Dimock over the objection of its on-site staff fits a troubling pattern at a time when the Obama administration has used the sharp increase in natural gas production to rebut claims that it is opposed to fossil fuels. In March 2012, the EPA closed an investigation of methane in drinking water in Parker County, Texas, although the geologist hired by the regulator confirmed that the methane was from gas production. In late June, the EPA dropped a study of possible contamination of drinking water in Pavillion, Wyo., despite its earlier findings of carcinogens, hydrocarbons and other contaminants in the water. "We don't know what's going on, but certainly the fact that there's been such a distinct withdrawal from three high-profile cases raises questions about whether the EPA is caving to pressure from industry or antagonistic members of Congress," said Kate Sinding of the Natural Resources Defense Council, an environmental group. The EPA confirmed the authenticity of the presentation about the Dimock wells but said it was the work of one employee. "This presentation represents one [on-scene coordinator's] thoughts regarding 12 samples and was not shared with the public because it was a preliminary evaluation that requires additional assessment in order to ascertain its quality and validity," said EPA spokeswoman Alisha Johnson. "The sampling and an evaluation of the particular circumstances at each home did not indicate levels of contaminants that would give EPA reason to take further action," Johnson said. "Throughout EPA's work in Dimock, the agency used the best available scientific data to provide clarity to Dimock residents and address their concerns about the safety of their drinking water." At the same time, the energy industry and its congressional allies have hammered the EPA for undertaking the studies, which they say are a pretext for regulatory overreach. "They have attempted to link fracking to water contamination in at least three cases, only to be forced to retract their statements after further scrutiny proved them to be unfounded," Rep. Lamar Smithother Duke scientists published in June indicates that drinking water wells near natural gas production in northeastern Pennsylvania, including Dimock, are at greater risk of methane contamination than those farther away.Methane is the primary component in natural gas.

LA TIMES

Internal EPA report highlights disputes over fracking and well water

An EPA staff report suggests methane from hydraulic fracturing, or fracking, contaminated wells near Dimock, Pa., but the agency says the water's safe to drink. One year ago, the Environmental Protection Agency finished testing drinking water in Dimock, Pa., after years of complaints by residents who suspected that nearby natural gas production had fouled their wells. The EPA said that for nearly all the 64 homes whose wells it sampled, the water was safe to drink. Yet as the regulator moved to close its investigation, the staff at the mid-Atlantic EPA office in Philadelphia, which had been sampling the Dimock water, argued for continuing the assessment. In an internal EPA PowerPoint presentation obtained by the Tribune/Los Angeles Times Washington Bureau, staff members warned their superiors that several wells had been contaminated with methane and substances such as manganese and arsenic, most likely because of local natural gas production. The presentation, based on data collected over 4 1/2 years at 11 wells around Dimock, concluded that "methane and other gases released during drilling (including air from the drilling) apparently cause significant damage to the water quality." The presentation also concluded that "methane is at significantly higher concentrations in the aquifers after gas drilling and perhaps as a result of fracking [hydraulic fracturing] and other gas well work." Critics say the decision in July 2012 by EPA headquarters in Washington to curtail its investigation at Dimock over the objection of its on-site staff fits a troubling pattern at a time when the Obama administration has used the sharp increase in natural gas production to rebut claims that it is opposed to fossil fuels. In March 2012, the EPA closed an investigation of methane in drinking water in Parker County, Texas, although the geologist hired by the regulator confirmed that the methane was from gas production. 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"The sampling and an evaluation of the particular circumstances at each home did not indicate levels of contaminants that would give EPA reason to take further action," Johnson said. "Throughout EPA's work in Dimock, the agency used the best available scientific data to provide clarity to Dimock residents and address their concerns about the safety of their drinking water." At the same time, the energy industry and its congressional allies have hammered the EPA for undertaking the studies, which they say are a pretext for regulatory overreach. "They have attempted to link fracking to water contamination in at least three cases, only to be forced to retract their statements after further scrutiny proved them to be unfounded," Rep. Lamar Smithother Duke scientists published in June indicates that drinking water wells near natural gas production in northeastern Pennsylvania, including Dimock, are at greater risk of methane contamination than those farther away.Methane is the primary component in natural gas. In enclosed spaces, such as sheds and basements, it poses the risk of asphyxiation and explosion. There is little research into the long-term effects on human health from prolonged exposure to methane in drinking water. (R-Texas), chairman of the House Science Committee, said at a recent hearing. Robert B. Jackson, professor of environmental sciences at Duke University, who has researched methane contamination in the Dimock area and recently reviewed the presentation, said he was disappointed by the EPA's decision. "What's surprising is to see this data set and then to see EPA walk away from Dimock," Jackson said. "The issue here is, why wasn't EPA interested in following up on this to understand it better?" The EPA staff presentation about Dimock was an interim analysis of water sampling data collected by Pennsylvania regulators and, later, by the EPA, from 2008 to June 2012. The presentation provides charts for nine of the 11 Dimock-area wells, tracking natural gas production work in the area and the concentration of methane and metals over a four- to five-year period, depending on the well. Some wells underwent a "short-term disruption," or a rise in methane in the water six to eight months after nearby gas development activity. Over two or three years, the concentration of methane fell. Four other wells experienced long-term disruption to their water quality, according to the presentation. In those instances, methane levels did not fall over time but remained high after an initial increase or began to climb after a period of decline. The presence of metals such as manganese and arsenic also rose over time in some of those wells. A study by Jackson and Scientists and

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regulators say that when methane ends up in well water, it is usually because of faulty metal casings inside a natural gas well that allow methane to seep out as it travels to the surface or shoddy concrete work that is supposed to keep gas and water from moving into the space between the well casings and the rock. Though EPA officials concluded that Dimock water was safe to drink, the mid-Atlantic EPA office nevertheless asked the Centers for Disease Control and Prevention to evaluate the health risk. Cabot Oil & Gas Corp., the company drilling in Dimock, asserts that the methane in the water is unrelated to oil and gas development. "Through our investigation, Cabot concluded that methane gas existed in groundwater and water wells in the Dimock and Springville townships long before Cabot began drilling in the area," said Dan O. Dinges, Cabot's chief executive, in a May 29 letter to the Senate Energy and Natural Resources Committee. Although methane gas occurs naturally in the area's aquifers, the Duke study showed that the chemical "fingerprint" of methane in shallow water wells near the gas sites was the same as the natural gas extracted from deep underground. The EPA PowerPoint presentation identified five wells contaminated with methane whose chemical fingerprint, or isotopic composition, was the same as methane from the Marcellus shale formation at the center of Pennsylvania's natural gas boom. Fred Baldassare, a former official at the Pennsylvania Department of Environmental Protection who worked on the state's Dimock studies, disputed the presentation's assertion that some wells contained Marcellus methane. Now a consultant for industry and homeowners, Baldassare said there was not enough information about the composition of the methane in the wells to draw conclusions about the origin. "It's dangerous and inappropriate to interpret this data in a vacuum," he said. Jackson disagreed, arguing that the methane found does not naturally occur in drinking water. "The burden of proof is different here," he said. "The question we're asking is, 'Was there enough evidence to warrant further study?' The EPA scientist clearly thought so." neela.banerjee@latimes.com

LA Times
EPA Censored Key Pennsylvania Fracking Water Contamination Study
A must-read Los Angeles Times story by Neela Banerjee demonstrates that - once again - the Obama administration put the kibosh on a key Environmental Protection Agency (EPA) study on hydraulic fracturing ("fracking") groundwater contamination, this time in Dimock, Pennsylvania. Though EPA said Dimock's water wasn't contaminated by fracking in a 2012 election year desk statement, internal documents obtained by LA Times reporter Neela Banerjee show regional EPA staff members saying the exact opposite among friends. "In an internal EPA PowerPoint presentation...staff members warned their superiors that several wells had been contaminated with methane and substances such as manganese and arsenic, most likely because of local natural gas production," writes Banerjee. "The presentation, based on data collected over 4 1/2 years at 11 wells around Dimock, concluded that 'methane and other gases released during drilling (including air from the drilling) apparently cause significant damage to the water quality.' The presentation also concluded that 'methane is at significantly higher concentrations in the aquifers after gas drilling and perhaps as a result of fracking [hydraulic fracturing] and other gas well work," Banerjee further explained. It's essentially a repeat of Steve Lipsky's water contamination by Range Resources in late-2010 in Weatherford, Texas. In that case, EPA conducted a taxpayer funded study, determined Range had contaminated his water, sued Range - and then proceeded to drop the suit and censor the study in March 2012. EPA also recently kicked the can down the road on a high-profile fracking groundwater contamination study in Pavillion, Wyoming, originally set to come out in 2014. That release is now expected in 2016, another election year. Just days after EPA's decision, a Duke University study again linked fracking to groundwater contamination in the Marcellus Shale. "We don't know what's going on, but certainly the fact that there's been such a distinct withdrawal from three high-profile cases raises questions about whether the EPA is caving to pressure from industry or antagonistic members of Congress," Kate Sinding of the *Natural Resources Defense Council* (NRDC) told the LA Times. Ed Rendell and Friends At Work Again? Located in the heart of the Marcellus Shale basin, Dimock was featured prominently in both "Gasland" documentaries, as well as in "FrackNation," the industry-funded film created to counter Josh Fox's films, produced and directed by climate change deniers Phelim McAleer and Ann McElhinney. In the case of "FrackNation," McAleer used EPA's desk statement for propaganda purposes. He portrayed Craig and Julie Sautner - whose water was contamined by Cabot Oil and Gas - as "crying wolf" for expressing anger that EPA privately told them their water was contamined, then publicly stated that it wasn't. The Sautners aren't alone in their frustration, however, and they're in good company. "What's surprising is to see this data set and then to see EPA walk away from Dimock," Robert Jackson, co-author of the June 2013 Duke study that included Dimock water samples, told the *LA Times*. "The issue here is, why wasn't EPA interested in following up on this to understand it better?" Jackson raises the million dollar question: Who from the industry pressured USEPA to censor the actual results of the Dimock study? In Steve Lipsky's case it was former head of the Democratic National Committee and Democratic Governor of Pennsylvania, Ed Rendell. Rendell - tied to the shale gas industry via Ballard Spahr LLP law firm and venture capital firms Element Partners and Greenhill & Co. - privately lobbied EPA to shut down its study and lawsuit centered on Lipsky's groundwater contaminated by the Pennsylvania-headquarted Range Resources. His lobbying proved successful, likely in part due to three of his former aides now working as industry lobbyists. One of those lobbyists is K. Scott Roy, Rendell's former "top advisor." Roy not only lobbies for Range Resources, but also sits on the Executive Board of the Marcellus Shale Coalition. Prior to serving in the Rendell administration and becoming a fracking lobbyist, Roy worked in the office of former PA Republican Governor Tom Ridge, who went on to serve as "strategic advisor" to the Marcellus Shale Coalition in 2012. Did Roy contact his old boss Ed Rendell and request the Obama Administration step away from the Dimock study? That's a question for a follow-up investigation. Dereliction of Duty, or Par For The Course? By law, the EPA is tasked to investigate groundwater contamination cases and punish violators of the law with criminal sentences. Instead, the industry has run roughshod over communities nationwide, letting polluters go free with no EPA accountability. "Our federal government has a responsibility to protect the citizens in communities that are suffering consequences from fracking and to give them the full facts," wrote the NRDC's Kate Sinding in a blog post. "It owes it to the American people to fully and fairly investigate every case that can help to answer some of the vexing scientific questions as to whether, and if so how, fracking and related activities contaminate drinking water. Sadly, EPA's recent pattern of activity suggests neither has been happening." In the military, dereliction of duty is a serious crime, but for upper-level EPA staffers, it seems to just be business as usual.

LA Times
EPA Not in Agreement Over Dimock
Regional officials with the Environmental Protection Agency based in Philadelphia did not agree with EPA's national office to close the investigation on water contamination in Dimock, according to a piece published in Sunday's Los Angeles Times. An internal Power Point presentation leaked to the Times shows at least one staffer at Philadelphia's region 3 office linked contaminants such as methane, arsenic and manganese to nearby gas drilling. Yet as the regulator moved to close its investigation, the staff at the mid-Atlantic EPA office in Philadelphia, which had been sampling the Dimock water, argued for continuing the assessment." The Times article doesn't say who at region 3 wanted to continue the investigation, nor did it describe their role in the process. One question seems to hinge on whether or not the methane detected in the water wells came from shallow formations, or bears the imprint of the deeper Marcellus Shale gas. But Region 3's assessment seems to agree with the investigation carried out by the Pennsylvania Department of Environmental Protection back in 2009, finding Cabot Oil and Gas responsible for methane migration in ten Dimock water wells. The presentation, based on data collected over 4 1/2 years at 11 wells around Dimock, concluded that "methane and other gases released during drilling (including air from the drilling) apparently cause significant damage to the water quality." The presentation also concluded that "methane is at significantly higher concentrations in the aquifers after gas drilling and perhaps as a result of fracking [hydraulic fracturing] and other gas well work." Some argue that whether or not the methane came from a shallow or deeper shale formation is irrelevant, because faulty well construction could cause even the shallow deposits to migrate into the aquifer. Although Cabot signed a consent decree with the DEP, the company says gas drilling did not cause any contamination, and that its own internal investigation showed the high levels of methane existed in the town's water supply before gas drilling began. The company is still barred from drilling in certain areas of Dimock. Dimock has become a battleground for pro and anti-gas drilling forces, especially after the release of Gasland, a film by Josh Fox that features the struggles of families who experienced high levels of methane and other contaminants in their well water. (Gasland 2 has since been released by HBO). Listen to the voices of Dimock residents on both sides of the debate. The Environmental Protection Agency got involved in Dimock after state regulators released Cabot Oil and Gas from the requirement to provide clean drinking water to affected residents. In January, 2012, the EPA informed the residents that it would provide water to four households and test the water at more than 60 homes. The EPA said further evaluation of water tests showed dangerous levels of barium, arsenic and other "hazardous substances." Both Cabot and the DEP criticized the EPA's decision to step into the Dimock controversy. Michael Krancer, then head of Pennsylvania's Department of Environmental Protection, wrote a scathing letter to the EPA. Cabot released a report saying federal regulators misconstrued the lab results. Still, the EPA tested drinking water from 64 households in the village of Dimock between January and

June, 2012. On July 25, 2012, the EPA announced it had completed its testing of drinking water supplies in the Susquehanna County village, and would halt its water deliveries. The EPA says it did find hazardous levels of barium, arsenic or manganese in the water supplies of five households. But the Agency said treatment systems could reduce the amount of toxins to safe levels. At the time, EPA Regional Administrator Shawn Garvin said no more action was needed to protect the public health of Dimock residents, with regard to drinking water. "The sampling and an evaluation of the particular circumstances at each home did not indicate levels of contaminants that would give EPA reason to take further action," said Garvin. "Throughout EPA's work in Dimock, the Agency has used the best available scientific data to provide clarity to Dimock residents and address their concerns about the safety of their drinking water." Garvin also emphasized at the time that the EPA's mission in Dimock was not to investigate whether or not gas drilling caused the contamination, rather, to determine residents could safely drink their well water. A spokesperson for the EPA in Washington, D.C. recently told the Los Angeles Times that the leaked presentation was a "preliminary evaluation" conducted by one employee. The article does not include a copy of the document, but gives this description: "The presentation provides charts for nine of the 11 Dimock-area wells, tracking natural gas production work in the area and the concentration of methane and metals over a four- to five-year period, depending on the well. Some wells underwent a "short-term disruption," or a rise in methane in the water six to eight months after nearby gas development activity. Over two or three years, the concentration of methane fell. Four other wells experienced long-term disruption to their water quality, according to the presentation. In those instances, methane levels did not fall over time but remained high after an initial increase or began to climb after a period of decline. The presence of metals such as manganese and arsenic also rose over time in some of those wells." In August 2012, shortly after the EPA ended its investigation of Dimock's water wells, all but one of the families settled their lawsuit with Cabot Oil and Gas. Terms of the agreement are not public. But in a call with investors, near the time of settlement, Cabot Oil and Gas CEO Dan Dinges had this to say: "The aggregate value of the settlements are not a material item with respect to Cabot's financial statements. Resolution of this litigation will have a very positive impact on G&A going forward due to the reduction in cost of defense." In fact, Cabot has done well since that call, with 2012 production and revenue exceeding all expectations. The company's recent second quarter report also shows its earnings more than doubled compared to last year.

After Delayed Vote, E.P.A. Gains a Tough Leader to Tackle Climate Change

When Lisa P. Jackson announced at the end of last year that she was stepping down as the administrator of the Environmental Protection Agency, President Obama faced a choice. He could play it safe by appointing her deputy or he could confront Congress head-on and signal a strong commitment to tackling climate change by appointing the agency's head of air quality, Gina McCarthy. "Why would you want me?" Ms. McCarthy said she asked the president when he offered her the top job. "Do you realize the rules I've done over the past three or four years?" Ms. McCarthy, an earthy, tough-talking New Englander who drew criticism as the head of the agency's air and radiation office during Mr. Obama's first term, then ticked off a list of controversial air pollution regulations she had helped write: tough greenhouse gas standards for vehicles, a tighter ozone limit that the White House rejected, the first rule on mercury emissions from power plants, and a regulation on smokestack pollution that crosses state lines, which has been blocked by a federal court. She warned that earning confirmation from the Senate might be difficult and that safer choices were available. The president told Ms. McCarthy that his environmental and presidential legacy would be incomplete without a serious effort to address climate change. "I'm so glad he said that, because if he hadn't, I wouldn't have wanted this job," she said. "It's an issue I've worked on for so many years, and it just can't wait." Mr. Obama's decision to nominate Ms. McCarthy, 59, was an act of defiance to Congressional and industry opponents of meaningful action on climate change. It was also a sign of his determination to at least begin to put in place rules to reduce carbon pollution. Ms. McCarthy was right about her confirmation. She was flooded with more than 1,000 questions from Senate Republicans, who held up a confirmation vote for 136 days, one of the longest delays of any of Mr. Obama's senior nominees. She finally won approval on July 18 on a 59-to-40 vote, as part of a deal reached after Senator Harry Reid of Nevada, the majority leader, threatened to change Senate rules to prevent filibusters on executive branch nominations. Six Republicans crossed the aisle to vote for her. One Democrat, Joe Manchin III of West Virginia, voted against her, complaining that the administration was waging a "war on coal." Ms. McCarthy discussed the battles won and the battles yet to be waged on Wednesday, during her first trip outside Washington and her first extended interview as the E.P.A. administrator. Addressing employees at the Chesapeake Bay program office overlooking Annapolis harbor, she said the agency would play a crucial role in dealing with climate change, both in writing the rules to reduce greenhouse gas emissions from new and existing power plants and in helping communities adapt to the inevitable changes wrought by a warming planet. She also said the agency had to do a better job of explaining its mission to hostile constituencies, including Congress and the agriculture, mining and utility industries. "We need this agency to reinvent itself, to the extent an agency of 17,000 people can," Ms. McCarthy said in a staff meeting in a waterfront conference room known as the Fish Shack. "I spend a lot of time protecting what we are doing rather than thinking about what we should be doing. The challenges of today are very different from the challenges of 40 years ago. Not every environmental problem deserves a rule." Ms. McCarthy said Mr. Obama had handed her an epic challenge in his address on climate change at Georgetown University in June. He said that in the face of resistance and inaction in Congress, he would use his executive authority to begin to rein in the emissions that are contributing to global warming. The most meaningful of those powers reside in the E.P.A., which will write regulations governing carbon emissions from power plants, the source of roughly 40 percent of the nation's greenhouse gas pollution. Under the president's timetable, the first of those rules, covering new fossil fuel plants, is due Sept. 20. The agency must produce draft standards for existing plants, a vastly more complex and controversial undertaking, by next June. "We worked with him on the schedule," Ms. McCarthy said, referring to the president. "He impressed on us how important it was to get started now. He said to get it done, and get it done right." Those rules will require a shift in power generation from coal to cleaner-burning natural gas, or development of new cost-effective means of capturing and storing carbon dioxide emissions. The regulations, along with proposed new rules governing coal-mining waste and the disposal of coal ash from power plants, are what Mr. Manchin and others mean when they say the E.P.A. is waging a war on coal. Ms. McCarthy rejected the charge. "We don't have a war on coal," she said. "We're doing our business, which is to reduce pollution. We're following the law." She declined to take a position on the Keystone XL oil pipeline, even though the E.P.A. has submitted two harsh critiques of the environmental impact statements produced by the State Department, which must rule on the pipeline project because it would span the border with Canada. "That's a matter for the Department of State, and I'm going to leave it there," she said. Ms. McCarthy is a proud native of the Boston area and a die-hard Red Sox fan. Before going to Washington, she served as a top environmental aide to a half-dozen governors of Massachusetts and Connecticut, including Mitt Romney, the 2012 Republican presidential nominee. She and her husband, Kenneth McCarey, a wholesale florist, have three adult children, all living in the Boston area. Her eldest, Daniel, 28, married two weeks ago. In a video message to E.P.A. employees at the beginning of her first full week on the job, Ms. McCarthy looks straight into the camera and says in her thick Hub accent: "Last week was a big week, and I am so pumped. My son got married, our E.P.A. headquarters was renamed after President Clinton, and of course there was this little thing with the U.S. Senate and my confirmation." She thanked Robert Perciasepe, the E.P.A. deputy who served as acting administrator during the months of vacancy in the top job, and noted that Carol Browner, President Bill Clinton's E.P.A. chief, had held the Bible at her swearing-in ceremony. Ms. McCarthy also paid tribute to the workers in the E.P.A.'s air office, calling them dedicated, action-oriented and "supah smaht." Those last two words have become something of a catchphrase at the E.P.A. in recent days, but Ms. McCarthy disavowed them. "Somebody else wrote that," she said later. "It should have been 'wicked smaht.' "

DELAWARE ONLINE

Dover plant finishes environmentally-conscious overhaul

NRG Energy, state and federal officials formally closed the book Friday on what had been Delaware's last remaining "uncontrolled" coal-fired power plant, announcing the finish of a $25 million overhaul of NRG's steam and power complex in west Dover. The more-than-yearlong project removed from service an idled, 16-megawatt boiler that had operated almost entirely without pollution controls. A major component salvaged from that system was in turn used to upgrade and increase the power output from one of two remaining 44-megawatt units fired by natural gas. Gov. Jack Markell's administration chipped in $500,000 for the project from a fund created in 2011 to curb energy use and create jobs – in this case 75 construction jobs and strengthening of support for longer term employment at the site. "We realized that with just a little, small investment from the state, we could actually make the numbers work really well," Department of Natural Resources and Environmental Control Secretary Collin P. O'Mara said, "and it just kept getting better and better, because it used natural gas, gave you emissions reductions and avoided a regulatory fight." NRG previously spent more than $360 million to upgrade pollution controls at the company's coal-fired Unit 4 Indian River Power Plant boiler near Millsboro. But the Dover coal-burner fell below the 25-megawatt minimum used to trigger mandatory emission controls. The 30-year-old NRG Dover operation sells wholesale power on the regional PJM grid and also provides industrial steam to adjacent operations at Kraft Foods and Procter & Gamble. Markell said Indian River now ranks among the nation's cleanest coal-fired plants in

the country, a major turnaround from its one-time status as one of the country's 50 dirtiest. He added that Delaware's coal-fired boiler fleet has fallen from 10 to one in recent years, helping the state achieve one of the fastest rates of reduction in air quality emissions nationwide. "The bottom line on all of this is, we can have, and we are building, a strong economy and a healthy environment simultaneously," Markell said. Although the modern controls on Unit 4 account for much of the improvement, some resulted from NRG's permanent shutdown of older and smaller boilers. David Gaier, spokesman for NRG's east region and NRG Thermal LLC, said the coal plant had been operating primarily to produce steam for neighboring plants before the overhaul. Regular combustion turbines work like a jet engine, using heat and energy from burning natural gas to spin a turbine and generator shaft. The upgrade created second step, or combined cycle system, that uses heat emerging from the turbine to create steam that turns another turbine and generator. Emissions of sulfur dioxide, a contributor to urban smog and toxic soot, are expected to decrease by 99 percent, or 4 million pounds a year, with smog-forming nitrogen oxides dropping by 800,000 pounds annually. Soot emissions will fall by 120,000 pounds annually. The coal plant shutdown also eliminates a 14-million-pound annual coal-ash waste burden.

STATE IMPACT PENNSYLVANIA

Klaber to Step Down from Marcellus Shale Coalition

Pennsylvania's top natural gas trade group is looking for a new leader. The Marcellus Shale Coalition announced on Friday that the current CEO Kathryn Klaber, will be leaving the organization after four years. The MSC was formed by a group of Marcellus Shale producers in late 2009, to be the public face of the state's burgeoning energy industry. Klaber has directed the organization since its inception. Its staffers work to influence drilling-related legislation, host the annual "Shale Insight" conference in Philadelphia, interact with the press, and promote the benefits of gas drilling. Its members were heavily involved in shaping the state's new drilling law, Act 13. Klaber earned her bachelor's degree in environmental science from Bucknell University. She worked previously at the consulting firm Environmental Resources Management, led the Pennsylvania Economy League, and before taking the job at the MSC, was an executive vice president at the Allegheny Conference on Community Development. "Pennsylvania is now producing nearly 10 percent of the nation's natural gas," said Klaber in a press release. "Our industry's work has been described as 'revolutionary' and 'game-changing'. The work of the MSC, collaborating with public officials, has helped create the climate for growth of an industry that has delivered on its promises to create American jobs, increase our energy security, while holding safety and environmental performance as paramount." The Marcellus Shale Coalition has grown to include more than 40 energy companies, and several hundred companies with ancillary ties to the drilling industry. The Coalition plans to conduct a national search with the goal of having a new CEO in place by the end of the year. In the meantime, Klaber will remain through the fall and be involved in the transition.

CHARLESTON GAZETTE

Texas study shows water pollution near gas drilling

A new study by researchers in Texas has documented high levels of metals in drinking water supplies near natural gas production sites, a finding they say shows the need for more research into the impacts of the nation's gas-drilling boom. Elevated concentrations of arsenic, selenium and strontium were discovered in drinking water wells located closest to natural gas extraction sites, according to the study, by a team of scientists from the University of Texas at Arlington. Researchers did not pinpoint the exact source of the contamination, and said their findings were not strong enough to suggest "systematic contamination of groundwater" by the natural gas industry. "We suggest that episodic contamination by private water wells could be due to a variety of natural and anthropogenic factors such as the mobilization of naturally occurring constituents into private wells through mechanical disturbances caused by intense drilling activity, reduction of the water table from drought or groundwater withdrawals, and faulty drilling equipment and well casings," said the study, published online Thursday by the journal Environmental Science and Technology. The study is latest in a series of scientific assessments that are just beginning to examine the potential water quality impacts of a nationwide natural gas boom driven by technological advances in hydraulic fracturing and horizontal drilling. "This study alone can't conclusively identify the exact causes of elevated levels of contaminants in areas near natural gas drilling, but it does provide a powerful argument for continued research," said lead author Brian Fontenot, a UT Arlington graduate who now works for the U.S. Environmental Protection Agency. The effort focused on water quality in the Barnett Shale, a gas-rich geologic formation that underlies a 5,000-square-mile area in 17 counties of north Texas. Researchers sampled 100 water wells from the Trinity and Woodbine aquifers, overlying the Barnett Shale and, as "reference sites" from the Nacatoch aquifer east of the Barnett Shale. One piece of potential good news was that the study detected none of the family of BTEX chemicals - benzene, toluene, ethylbenzene and zylenes - in the drinking water, a possible indication that chemicals used in the hydraulic fracturing, or "fracking" process had not migrated into the water wells. But, researchers detected the highest levels of metal contaminants within 3 kilometers of natural gas wells, including several samples that had arsenic and selenium above concentrations considered safe by EPA. Areas lying outside of active drilling areas or outside the Barnett Shale did not contain the same elevated levels for most of the metals. "At minimum, these data suggest that private wells located over natural gas wells may be a higher risk for elevated levels of constituents than those located further from natural gas wells," the study concluded. Duke University scientist Robert Jackson, who has done some widely cited work on gas drilling impacts, said one limitation of the new Texas study was its small number of "reference" sites - just nine, with five outside the Barnett Shale and four within the shale but not near active drilling. Still, Jackson said, "It's an important study that should be followed up." As they push for more natural gas, drilling operators are increasingly using a process called hydraulic fracturing, or fracking, which shoots vast amounts of water, sand and chemicals deep underground to break apart rock and release the gas. Much of the modern gas boom also involves drilling down and then turning horizontally to access more gas reserves. Industry officials insist the process is safe. But the new Texas study notes a concern among scientists about the lack of hard data on the drilling boom's potential environmental effects. "Despite a number of recent investigations, the impact of natural gas extraction on groundwater quality remains poorly understood," the Texas study said. Another study, published in May by the journal Science, found that, "It is difficult to determine whether shale gas extraction in the Appalachian region since 2006 has affected water quality regionally, because baseline conditions are often unknown or have already been affected by other activities, such as coal mining." Last week, The Associated Press reported on what it said were the "preliminary" results of a U.S. Department of Energy study that found "no evidence" that drilling chemicals contaminated drinking water aquifers near at a western Pennsylvania site. The study marks the first time that a drilling company has allowed government scientists to inject special tracers into fracking fluid to monitor if the chemicals spread toward drinking water sources. Shelley Martin, a spokeswoman for DOE's National Energy Technology Laboratory, later told the Gazette, "While nothing of concern has been found thus far, the results are far too preliminary to make any firm claims." "We are still in the early stages of collecting, analyzing and validating data from this site," Martin said in an email earlier this week. "We expect a final report on the results by the end of the calendar year." Martin did not respond to a follow-up request for data from the "preliminary" results or for an interview with the scientists involved in the study. In West Virginia, business and political leaders are eager to expand natural gas drilling, to tap into the vast reserves contained in the Marcellus Shale, a formation that stretches from southern New York and into eastern Ohio. Between 2003 and 2011, West Virginia's natural gas production more than doubled to nearly 400 million cubic feet. Over roughly the same period, employment in the industry increased by 55 percent, to more than 10,000. The Obama administration has embraced shale-gas drilling, with the president saying in a major speech last month that natural gas is "the transition fuel that can power our economy with less carbon pollution" as the nation moves toward "the even cleaner energy economy of the future." Obama acknowledged that more needs to be done to make natural gas drilling safe, and noted the need for better control leaks of the potent greenhouse gas methane from gas production. At the same time, EPA has backed off major investigations of drilling impacts on water quality in Wyoming, Pennsylvania and Texas, and the agency doesn't plan to issue a draft of a nationwide study of the issue until late 2014.

ASSOCIATED PRESS (W. VA.)

Drilling starts in Greene County for Devonian shale

Move aside, Marcellus and Utica shales, and make way for a new player in the natural gas bonanza: the Devonian Shale. Earlier this month, Consol Energy became the third company to successfully extract natural gas from the Devonian, following Rex Energy Corp. and Range Resources Corp. The company's drilling attempt took place in Greene County, which lies on the eastern border of Marshall County and the northeastern border of Wetzel County. Tim Carr, Marshall Miller professor of energy at West Virginia University, said the Upper Devonian is a mix of sandstone and other forms of rock. It lies just above the Marcellus Shale, which underlies much of West Virginia, Pennsylvania and Ohio. The Utica Shale is a

much older formation that lies deeper within the earth compared to the Marcellus and Upper Devonian, he said. "There are lots of black shale units," Carr said regarding the Upper Devonian Shale. "How much gas and liquids is the question. There is no answer at the present. There is potential." "The Devonian Shale was the target of a lot of drilling activity back in the late 1970s and the 1980s," added Robert W. Chase, professor of petroleum engineering and geology at Marietta College. "It produced both oil and gas, but was not as prolific as the Marcellus or Utica because it was not very deep and didn't have as much pressure as the deeper formations." Consol's first endeavor into the formation hit the Upper Devonian at 12,490 feet deep in Greene County, according to the company's quarterly filing report. It drew about 3 million cubic feet per day, roughly a third of the output of two nearby Marcellus wells. Consol drilled its Upper Devonian Shale well in the Burkett formation, which is the deepest of numerous Upper Devonian shales. Consol officials said they chose to drill their first well in the Burkett in order to test the potential interaction with deeper Marcellus Shale wells. Corky Demarco, executive director of the West Virginia Oil and Natural Gas Association, said most of the Upper Devonian wells drilled in the Mountain State have largely resulted in the production of dry methane gas, rather than liquids or oil. He said it is "considerably" cheaper to drill an Upper Devonian well because it is not as deep or complex as one in the Marcellus or Utica. Instead of millions of gallons of water, sand and chemicals, Demarco said Upper Devonian wells in West Virginia are usually fracked with hydrogen. "If natural gas prices increase, you could see more of these wells drilled," he said. For its part, Consol believes all of its northern West Virginia and southwestern Pennsylvania acreage has the potential for Upper Devonian exploration, but presently believes about 300,000 acres of this can be commercially viable. Overall, Consol's Gas Division produced 38.6 billion cubic feet of gas, in total, during the three months from April through June, which reflects a 3 percent increase from the same period in 2012. Production included 418 million cubic feet of dry methane gas per day, 335 barrels of oil per day, and 655 daily barrels of liquids such as propane, butane and ethane. Consol Chairman and Chief Executive Officer J. Brett Harvey said gas production should increase in the coming years. This fits the company's profile of shifting more of its focus from coal mining to oil and gas drilling amid increased efforts by the Obama Administration to curtail emissions of carbon dioxide and mercury. "Today, we're adding rigs and accelerating our drilling. I see 2014 as a logical progression in this endeavor, where we'll be able to continue our acceleration in gas production and deliver meaningful value to our shareholders," Harvey said. "And unlike pure-play exploration and production companies, we'll have a coal division and potential asset sales that can help fund this growth," he added.

EPA identifies 29 nonattainment areas for SO2 standard

GREENWIRE U.S. EPA has designated 29 areas in 16 states as "nonattainment" areas for being in violation of the national air quality standard for sulfur dioxide. The areas were found to be in violation of the 2010 SO2 rule, which set a limit of 75 parts per billion averaged over an hour. Those areas must now develop a state implementation plan within 18 months to reduce the pollution and get below the standard. In most areas, EPA said it has already accepted state recommendations. SO2, an air pollutant linked to outdoor haze and acid rain, can aggravate asthma and other respiratory problems. The nonattainment areas were spread across 16 states but had a heavy concentration in the Midwest. Ohio, Pennsylvania and Indiana each had five nonattainment areas, while Illinois had four, Missouri two and Iowa one. The designations came amid a potentially controversial change in EPA implementation, in which the agency indicated it would back away from its policy of relying mostly on computer modeling in favor of monitors. The "dual-pathway" model, which incorporates both computer modeling and monitors, created concern among some environmentalists about less accurate readings (*E&ENews PM*, Feb. 8). The monitors give more accurate readings but are more expensive and have limited availability, while computer modeling allows air agencies to use emissions data from previous years to characterize current air quality and estimate pollution in areas that may not have monitors.

State declares disaster status for 14 counties

WILLIAMSPORT SUN-GAZETTE The Clinton County commissioners received word Thursday that Gov. Tom Corbett has declared a disaster emergency for Clinton and 13 other counties. The proclamation came 29 days after the actual flooding. On June 26, high winds, severe thunderstorms, heavy rains, tornadoes and widespread flooding hammered parts of the state and caused extensive damage in the Beech Creek area of Clinton County. The declaration qualifies the state's Emergency Management Agency for $200,000 to be used for its own disaster-related expenses and offers counties, local governments and individuals the possibility of assistance from state agencies and, depending on some factors, the potential for low-interest loans from the Small Business Administration to make emergency repairs to businesses, homes and municipal infrastructure. There are three levels of disaster designation. A governor's proclamation allows state agencies wide latitude to provide assistance and relaxes contracting requirements; a Small Business Administration disaster declaration provides limited loan assistance to individuals and businesses following smaller events; and, a Presidential Declaration of Major Disaster or Disaster Emergency that involves a response from both state and federal resources. According to legislative aide Mitzi Gallagher, who attended the county government meeting, the state and federal agencies still are gathering numbers and assessing damages, with the "magic number" being $17.2 million in damages for a federal disaster declaration. The other counties included in the proclamation include Allegheny, Centre, Clearfield, Crawford, Fayette, Huntingdon, Jefferson, Lackawanna, Lawrence, Schuylkill, Venango, Washington and Wayne. The governor's declaration followed an unusual series of weather events that sparked two severe storms within a week's time, causing widespread flooding and property damage to some sections of central Pennsylvania. Beech Creek Borough and Beech Creek and Bald Eagle townships in Clinton County and Liberty Township in Centre County were particularly hard hit.

Maryland and Virginia residents say harm from climate change is arriving

WASHINGTON POST About half of Maryland and Virginia residents believe climate change is causing harm or will do so in the next 10 years (locally and/or nationally) according to two recent surveys. The Maryland survey reports 52 percent of Marylanders believe that the U.S. has already been harmed by climate change. By comparison, in the Virginia survey, 49 percent of residents say they believe climate change is already harming the state or will do so in the next 10 years. The surveys were released last week by the George Mason Center for Climate Change Communication. The Maryland survey, Public Health, Energy and Climate Change, reveals beliefs on different environmental hazards the public may view as unhealthy whereas the Virginia survey, Perceptions of Weather and Climate Change in Virginia, more broadly explores attitudes about climate change and links to extreme weather. Of the 2,126 Marylanders who were polled in the survey, respondents viewed air pollution as the highest personal health risk, coming in ahead of chemicals, the flu, and even obesity. Climate change ranked eighth. Despite the relatively low ranking for climate change, over half of the adults surveyed believe that violent storms are becoming a health problem, and 48 percent believe climate change is increasing the risk

Recycle, reuse, tax? Norfolk targets plastic bags

NORFOLK VIRGINIAN PILOT In an effort to slow landfill growth and protect 150 miles of coastline, city leaders have set their sights on a ubiquitous foe - the plastic bag. Norfolk is promoting reusable bags this fall in an effort to persuade residents to use fewer plastic bags, which are found everywhere from the grocery store to the sandwich shop. Norfolk backed a state Senate bill this year that would have placed a 5-cent tax on bags to discourage their use. The city plans to support the measure again next year, according to a City Council memo. The council also tried to persuade the legislature to allow cities to impose bag taxes of their own. The city is focusing now on encouraging residents to recycle plastic bags or, better yet, carry reusable bags. In September, a new environmental task force will distribute reusables at grocery stores, give civic league presentations and teach lessons in city schools, said Stephen Leaman, task force chairman. Denise Thompson, environmental protection programs manager, said using alternatives would save the city money and protect its waterfront. The latter issue sparked Leaman's interest. He sees plastic bags all the time near his Willoughby Spit home. The task force estimates that 8 to 10 percent of all plastic bags end up littering roads and waterways, and Leaman said a tax - or an outright ban - might be needed to get that percentage down to zero. A bag tax would first need an OK from the General Assembly, then the public's support and, finally, council approval. The idea hasn't fared well in Richmond, said John Deuel, executive director of Keep Norfolk Beautiful. And already, it has picked up some local opposition, including from the Hampton Roads Chamber of Commerce. "The chamber has been opposed to a plastic bag tax for quite some time," said Lisa Jones, its communications director. "It adds to the price of groceries, and the tax is passed on to the consumer.